



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,614	12/12/2003	Jean Renard Ward	P0916D	1705
23735	7590	11/10/2008	EXAMINER	
DIGIMARC CORPORATION			TURCHEN, JAMES R	
9405 SW GEMINI DRIVE			ART UNIT	PAPER NUMBER
BEAVERTON, OR 97008			2439	
MAIL DATE		DELIVERY MODE		
11/10/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/734,614	<b>Applicant(s)</b> WARD, JEAN RENARD
	<b>Examiner</b> JAMES TURCHEN	<b>Art Unit</b> 2439

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 14 August 2008.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-32 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application  
6) Other: \_\_\_\_\_

**DETAILED ACTION**

Claims 1-32 are pending.

***Response to Arguments***

Applicant's arguments filed 07/29/2008 have been fully considered but they are not persuasive.

Regarding claim 1:

Examiner disagrees with applicant that Chow teaches away from the claimed arrangement "wherein the first set of information comprises an unencrypted form." Applicant's argue "at least a first set of information in the encoded symbology is unencrypted." In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the first set of information *in* the encoded symbology) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The first set of information comprises an unencrypted form in area 1 of Chow. The first set of information also comprises an encrypted form in area 3.

Regarding claim 13:

Chow discloses an inventory number in area 1 of figure 2. The number is unique to the ID.

Regarding claim 15:

Manabe discloses determining construction materials, equipment or processing details of the identification document from at least a cryptographic signature in paragraphs 18, 63, 69 and claim 7. If the digital signature is used to decrypt the watermark and the construction materials, equipment or processing details are determined from the watermark, then determining construction materials, equipment or processing details from a cryptographic signature holds.

Regarding claim 16:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., digital watermarking is a form of steganography) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 21:

How Digital Certificates Work discloses a date indicator corresponding to an untrusted- but not expired- date on page 33. The CertificateHold is a "date indicator" that indicates the certificate is untrusted but not expired. How Digital Certificates Work is enabling for the subject matter of the claim lacking by Chow and Chen.

Regarding claim 27:

In response to applicant's arguments, the recitation "wherein unauthorized issuance occurs when the identification document is fabricated on authorized equipment but is issued in an unauthorized manner" has not been given patentable weight because

the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Regarding claim 29:

One of ordinary skill in the art at the time of invention would recognize the addition of random numbers or pseudo-random numbers produces an unpredictable numerical result.

***Claim Rejections - 35 USC § 103***

Claims 1-4, 6, 7, and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. (US 6,292,092) in view of Chen et al. (US 5,694,471).

Regarding claims 1 and 5:

Chow et al. discloses an identification document comprising a photographic representation of a bearer of the identification document (figure 2, item 2) and indicia provided on the document (figure 2, item 1), the identification document further comprising a security feature printed on a surface of the identification document in a two-dimensional encoded symbology (figure 2, item 3), the security feature including: a first set of information corresponding to at least one of the identification document, the bearer of the identification document (figure 2, item 1 shows the bearers information in plain text) and an issuer of the identification document (figure 2, examiner interprets the

Canadian flag as an identification of the issuer), wherein the first set of information comprises an unencrypted form; and a cryptographic measure associated with the first set of information (column 4 lines 62-67). Chow et al does not disclose the cryptographic measure identifying at least a record of fabrication for the identification document. Chen et al. discloses an issuer identification number (column 7 lines 37-48) that is used in a public/private key pair (column 8 lines 9-21). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the identification document disclosed by Chow et al. with the record of fabrication used in the cryptographic measure in order identify who issued the document.

Regarding claim 2:

Chow et al. and Chen et al. disclose the identification document of claim 1, wherein the record of fabrication identifies at least one of equipment used in fabricating the identification document, an identification document assembler, a distribution channel and an operator of document fabrication equipment (Chen et al. discloses the issuer identification number. It is inherent that the issuer identification number discloses the operator of document equipment (either an individual or organization)).

Regarding claim 3:

Chow et al. discloses in figure 2, item 1 that the set of information comprises an identification number, name, birth date, and blood type (physical attribute).

Regarding claim 4:

Chow et al. discloses the two-dimensional symbology comprises a 2-D barcode (figure 2, column 3 lines 1-2).

Regarding claims 6 and 7:

Chow et al. and Chen et al. disclose the identification document of claim 1. The use of certificates with public/private key pairs is inherent in the art. Additionally, the certificate comprising a public key for decrypting is also inherent in the art.

Regarding claims 10 and 11:

Chow et al. discloses the cryptographic measure comprises a hash of at least the first set of information and a second set of information (item 1 and 2, column 3 lines 43-51). The hash is later encrypted by the private key (column 5 lines 1-6).

Regarding claim 12:

Chow et al. discloses the second set of information comprises a condensed representation of the photographic representation (column 5 lines 65-66).

Regarding claim 13:

Chow et al. discloses in figure 2, item 1 an identification number (an identification number is unique to the ID and therefor can be used as an inventory number, where it is located). It would have been obvious to one of ordinary skill in the art to move the identification number from section 1 to section 2 using either an overlay or a displaying the ID number at a side of the picture.

Regarding claim 14:

Chow et al. discloses the indicia comprises at least text but not a barcode (figure 2). Examiner takes official notice that barcodes are well known in the art. The claim would have been obvious because the substitution of one known element for another

would have yielded predictable results to one of ordinary skill in the art at the time of invention.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. and Chen et al. as applied to claim 6 above, and further in view of Manabe (US 2002/0073319).

Chow et al. and Chen et al. disclose the identification document of claim 6, but do not disclose wherein the cryptographic measure comprises an encrypted form to at least a first private key and second private key, wherein the first private key is uniquely associated with a fabrication equipment operator or a first stage of fabrication, and the second private key is uniquely associated with equipment used in fabricating the identification document or a second stage of fabrication. Manabe discloses inserting discrimination information for a printing person or a printing controller system (paragraph 69). It would have been obvious to one of ordinary skill in the art at the time of invention to associate the private keys of Chow et al. and Chen et al. with the discrimination information of Manabe in order to include information such as the printing person, printing controller system, ID of the printer, and/or time information (paragraph 69). The hash function of Chow can be applied to each item individually in order to obtain a first digital signature corresponding to a first stage of document fabrication and a second digital signature corresponding to a second stage of the document fabrication process. The claim would have been obvious because "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads

to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense."

Claims 15-20 and 22-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. in view of Manabe.

Regarding claims 15, 18, 19, and 26:

Chow et al. discloses a method of analyzing an identification document, the identification document comprising a first set of information and a cryptographic signature corresponding to the first set of information, wherein the first set of information and the cryptographic signature are encoded in a machine-readable format, the encoding being printed or engraved on a surface of the identification document, said method comprising: machine-sensing the first set of information and the cryptographic signature (column 5 lines 9-30, the use of certificates is inherent in public/private key pair methods; It is common to sign a document with the creator's/manufacturer's signature in order to identify authenticity of the document and verify it is a trusted origin). Chow et al. does not disclose determining construction materials, equipment, or processing details of the identification document from at least the cryptographic signature. Manabe discloses inserting discrimination information for a printing person or a printing controller system (paragraph 69). It would have been obvious to one of ordinary skill in the art at the time of invention to associate the cryptographic signature of Chow et al. and Chen et al. with the discrimination information of Manabe in order to include information such as the printing person, printing controller system, ID of the printer, and/or time information (paragraph 69).

Regarding claims 16 and 17:

Chow et al. discloses digital watermarking in the form of a two-dimensional symbology (figure 2, item 3).

Regarding claim 20:

Chow et al. and Manabe disclose the method of claim 19, but does not disclose the method of determining whether the certificate has been revoked. Examiner takes official notice that certificate revocation was well known within the art at the time of invention. It would have been obvious to one of ordinary skill in the art to check a trusted third party to find out the authenticity and status of the certificate (if the certificate is revoked or not).

Regarding claims 22 and 23:

Chow et al. and Manabe disclose the method of claim 18 and the use of asymmetric keys (column 5 lines 1-6), but does not disclose the use of symmetric keys or the use of a trusted third party. Examiner takes official notice that trusted third parties were well known at the time of invention. It would have been obvious to one of ordinary skill in the art at the time of invention to check the authenticity and status of the certificate with a trusted third party in order to guarantee authenticity of the signature. Examiner takes official notice that symmetric keys were well known in the art at the time of invention. The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of invention.

Regarding claim 24:

Chow et al. and Manabe disclose the method of claim 18, wherein the fabrication details comprise at least one of an identification document distribution record, unauthorized issuance, type of identification document equipment used to fabricate the document, document assembling equipment operator, document lot number or document batch number (Manabe, paragraph 69, printing person, printing controller system, ID of the printer, and/or time information).

Regarding claim 25:

Chow et al. and Manabe disclose the method of claim 18 wherein the fabrication details include printing person, printing controller, ID of the printer, and/or time information (Manabe, paragraph 69), but do not disclose wherein the fabrication details comprise at least a type of identification document. The claims would have been obvious because "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense."

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. in view of Manabe and How Certificate Services Works.

Regarding claim 21:

Chow et al. discloses a method of analyzing an identification document, the identification document comprising a first set of information and a cryptographic signature corresponding to the first set of information, wherein the first set of information and the cryptographic signature are encoded in a machine-readable format, the encoding being printed or engraved on a surface of the identification document, said

method comprising: machine-sensing the first set of information and the cryptographic signature (column 5 lines 9-30, the use of certificates is inherent in public/private key pair methods; It is common to sign a document with the creator's/manufacturer's signature in order to identify authenticity of the document and verify it is a trusted origin). Chow et al. does not disclose determining construction materials, equipment, or processing details of the identification document from at least the cryptographic signature. Manabe discloses inserting discrimination information for a printing person or a printing controller system (paragraph 69). It would have been obvious to one of ordinary skill in the art at the time of invention to associate the cryptographic signature of Chow et al. and Chen et al. with the discrimination information of Manabe in order to include information such as the printing person, printing controller system, ID of the printer, and/or time information (paragraph 69). Chow et al. and Manabe do not disclose, wherein said cryptographic signature comprises a date indicator, and wherein said determining comprises determining whether the date indicator corresponds with an untrusted –but not expired – date. How Certificate Services Works discloses a status for certificates, CertificateHold, that is a temporary revocation that indicates that a CA will not vouch for a certificate at a specific point in time (page 33). It would have been obvious to one or ordinary skill in the art at the time of invention to modify the method of Chow and Manabe with the CertificateHold status of How Certificate Services Works in order to allow for temporary revocation (page 33).

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. in view of How Certificate Services Works.

Chow et al. discloses a method of identifying unauthorized issuance of an identification document, wherein unauthorized issuance occurs when the identification document is fabricated on authorized equipment but is issued in an unauthorized manner, the identification document including first data and a digital signature corresponding to at least the first data, the digital signature further including a date indicator associated with the fabrication of the identification document, said method comprising machine-sensing the identification document to obtain the first data and the digital signature (figure 1, scanner scans the identification document); validating the digital signature in accordance with a certificate associated with the digital signature (column 5 lines 9-30, the use of certificates is inherent in public/private key pair methods; It is common to sign a document with the creator's/manufacturer's signature in order to identify authenticity of the document and verify it is a trusted origin).

Chow et al. does not disclose determining whether the certificate has been revoked, and if so revoked, determining whether the date indicator corresponds with a date associated with the certificate's revocation, and if so associated, identifying the identification document as being issued without authority. How Certificate Services Works discloses a status for certificates, CertificateHold, which is a temporary revocation that indicates that a CA will not vouch for a certificate at a specific point in time (page 33). It would have been obvious to one or ordinary skill in the art at the time of invention to modify the method of Chow et al. with the CertificateHold status of How Certificate Services Works in order to allow for temporary revocation (page 33).

Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al.

Regarding claims 29 and 32:

Chow et al. discloses a method comprising: randomly or pseudo-randomly selecting a unique serial number; associating the unique serial number and fabrication details in a data record; providing the unique serial number on the identification document; and issuing the identification document (Chow et al. discloses an identification document with a document number in figure 2, item 1; it is inherent to generate a serial number, assign a serial number to a item, record the item, serial number, and fabrication details (creation date/issue date/completion date, issuer, etc.) in a database, and to issue the item). The examiner takes official notice that pseudo-random and random number generation were well known in the art at the time of invention. It would have been obvious because all the claimed elements were known in the art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of invention.

Regarding claims 30 and 31:

Chow et al. discloses the identification number as a form of text in section 1 of figure 2. Chow et al. further discloses using the information in section 1 as an input to generate the barcode (figure 2, section 3) in column 3 lines 43-51.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES TURCHEN whose telephone number is (571)270-1378. The examiner can normally be reached on MTWRF 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571)272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRT  
/Kambiz Zand/  
Supervisory Patent Examiner, Art Unit 2434